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THE DEVASTATING EFFECTS OF CONFLICT ON HEALTH



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THE DEVASTATING EFFECTS OF CONFLICT ON HEALTH

Warfare and conflicts have changed dramatically from conventional forms to more diffuse types of conflicts, with a proliferation of actors who distinguish themselves by their ideologies rather than geographic boundaries. According to the annual Munich Security Report, the Western world order is at risk of being overhauled, as we are entering a post-Western era.⁽¹⁾ Parliaments in Europe consider boosting defence spending. Millions of people are fleeing their countries in search of safer grounds. Defence and development organisations increasingly coordinate their actions, such as providing medical assistance to people in conflict situations or migrants. Medical staff in humanitarian aid operations themselves are becoming a target. Aloudat and Abu-Sa'Da argue that, in view of these changes, medical humanitarian assistance will have to redefine its contours. This requires a better understanding and debate of the realities of humanitarian emergencies, including the future of medical humanitarianism. This edition of *MTb* focuses on some of these issues and their impact on the health of populations and of health workers within the context of humanitarian medical aid.

In 2008 the NVTG and MSF organized the conference 'Health Care in conflict: the boundaries of Health interventions'. In his keynote 'When conflict is over' Egbert Sondorp talked about post-conflict reality on the ground. In this *MTb*, he again addresses post-conflict situations, in particular the transition phase in which the state gradually reinstates itself and societies try to chart a path towards societal recovery. Local health systems need to be rebuilt with a view on restoring the routine delivery of quality services, and this often presents a bigger challenge than providing emergency care during times of conflict.

In view of the growing recognition of the links between political, military, social, and economic issues, the Dutch

Ministry of Foreign Affairs embraced the '3D security framework'. This trinity of Development, Diplomacy and Defence is a comprehensive approach implying cooperation between diplomats, military, humanitarian organisations and local populations. The aim is to collaborate in ending the conflict, bringing peace, reducing threats, and putting new civilian systems in place. Van Thiel and Stijnis highlight what is required from medical staff in such peacekeeping missions and outline the contours of a training programme for Dutch military doctors and nurses. An interview with a military nurse illustrates how this knowledge is used in the daily practices of (preparing for) working in 'the frontline'.

There is a worrying recent trend of systematic and deliberate targeting of medical facilities and personnel in conflict settings. The bombings of the MSF clinics in Afghanistan in 2015 and more recently in Syria are examples of such cruelty. Bach Baouab argues for the active involvement of doctors and medical associations within their own societies in demanding accountability and respect for the basic laws of war in order to protect healthcare providers and services in conflict zones.

Lessons from the past may serve us in the present. Historian Van Bergen describes a period of violent resistance by the local population in Aceh against the Dutch colonizers in the Dutch East Indies at the beginning of the 20th century. The acts of resistance were framed in different ways, one of which was linking the attacks to the history of leprosy in the region. The article clarifies these differing perspectives and provides some thought-provoking insights – an interesting way to link past and present in a year in which the NVTG celebrates its 110th anniversary.

ESTHER JURGENS, JAN AUKE DIJKSTRA

Cover: Cape Province South Africa

1. http://www.euractiv.com/section/security/news/munich-security-conference-start-of-a-post-western-era/?utm_source=IHP+Newsletter&utm_campaign=re8a5fbcbc-EMAIL_CAMPAIGN_2017_02_17&utm_medium=email&utm_term=0_14504ce43d-re8a5fbcbc-298040749



A future for human dignity? The fragile perspectives of humanitarian assistance

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*Domeez refugee camp,
Kurdistan, Iraq - 2013*

The MSF (Médecins Sans Frontières / Doctors without Borders) clinic in Athens receives refugees who escaped war and crossed the sea only to get confined in freezing winter with no direction and little hope. Yet, the refugees in Athens are only one example where humanitarians attempt, and often fail, to remedy the wrongs done

by war, disaster, and dirty politics. Helping people restore their lives after a conflict is committing to human dignity and social justice, but even in our role as humanitarians managing crises, we are reluctant to acknowledge the changes that affect our work, environment, and the people we serve.



Greying veterans speak of classic humanitarian contexts, but such conditions scarcely exist anymore. Talking to senior managers in MSF, we found that a majority started in the early nineties in the Great Lakes, South Sudan, Burundi, Chechnya, Somalia, Liberia, Afghanistan, and Bosnia. Those conflicts of the 20th century involved ‘interstate tensions and one-off episodes of civil war’ where actors, sovereign states or clearly defined rebel movements, are known, and ‘if a dispute escalates and full-scale hostilities ensue, an eventual end to hostilities (either through victory and defeat or through a negotiated settlement) is followed by a short post-conflict phase leading back to peace’⁽⁴⁾. Those conflicts created large refugee camps such as Goma in the Democratic Republic of Congo or the Dadaab in Kenya.

Today’s conflicts are fought and concluded differently; the report quoted above describes ongoing ‘cycles of repeated violence’. This comes with changes in global governance and attitudes, technological advances, and increased political and economic fragility. Refugee camps are no longer the norm, and forced displacement has taken on a new shape and scale.

CHANGING CONFLICTS

The siege of Aleppo has been likened to that of Sarajevo (1992-96). Yet, Aleppo, unlike Sarajevo, which was besieged by the regular Republika Srpska army, saw troops from half a dozen countries and militias and non-state armed groups fighting for it.

Wars are different today. Revisionist theories concerning ‘just wars’ argue against the conventional understanding of just war (*jus ad bellum*) and its appropriate conduct (*jus in bello*), arguing that ‘it is a mistake to think of war as a morally distinctive enterprise’⁽²⁾, and equating it to individual violence, hence blurring the lines between combatants and non-combatants⁽³⁾.

Others maintain that there are *New Wars*⁽⁴⁾ where actors, goals, methods, and finance are different. The 21st

century wars are fought by a mix of ‘regular armed forces, private security contractors, mercenaries, jihadists, warlords, and paramilitaries, etc.’, replacing ideology by identity politics, and they are fought through displacement and control of population rather than decisive battles.

Moreover, great powers prefer to fight with zero casualties, chiefly using drones. This changes war, where fighters are liable to die in combat, into a ‘manhunt’ where one side suffers all the losses while the other is totally immune⁽⁵⁾. This change is illustrated by the US dropping more than 26 thousand bombs in 2016 alone⁽⁶⁾.

This contributes to the concept of *Hybrid Warfare*, which includes counter-insurgency and war on terror through unconventional means, ‘involving the convergence of combatants and non-combatants, kinetic and nonkinetic, physical and psychological weaponry’, and which seeks to incorporate ‘the aspirations and techniques of mainstream international development and humanitarianism in the battle space of war’⁽⁷⁾.

CHANGING ACTORS AND ENVIRONMENT

Daesh, or ISIS (Islamic State in Iraq and Syria), a Jihadist group that occupied vast lands in Iraq and Syria in the past three years, has become a major item of news broadcasts and political debates. This is due to their military conquests as well as the terror attacks they perpetrated in the West.

Daesh is different from previous non-state actors in conflicts. They employ different methods, mixing guerrilla warfare, online fundraising and recruitment, and terror attacks far away from their stronghold. They don’t attempt to overthrow a government, to take its place, and become the legitimate rulers of their country. They are dismissing the borders of the nation-states and creating new borders with no concern for international norms and legitimacy.

Additionally, permanent members of the United Nations Security Council

have shown very little ability to collaborate or put aside animosities to limit the devastation of conflicts like those of Syria or Yemen. On the contrary, they have all manipulated the UNSC to undermine the very peace and security it aims for in order to promote their own political interests.

The crisis in Syria reveals the shortcomings of the UNSC in stopping conflicts as well as those of the humanitarian system, including UN agencies, donors, and NGOs⁽⁸⁾. The failure to mitigate attacks on medical facilities such as the one by the US Airforce on the MSF hospital in Kunduz and the many airstrikes on hospitals in Yemen and Syria are just a few examples of this.

The limitations on traditional NGOs and other humanitarian actors in accessing such conflicts made it the norm for local entities, such as the self-organised civil defence in Syria as well as the local medical personnel there and in Iraq, to become the providers of whatever assistance is left.

An attempted takeover of the humanitarian space seems to be continuing, as we observed at the World Humanitarian Summit in 2016, where the Chair’s Summary⁽⁹⁾ notes the attendance of ‘55 Heads of State and Government, hundreds of private sector representatives, and thousands of people from civil society and non-governmental organisations’. The sequence of actors here, like a Freudian slip, reveals a change in the perception of humanitarian actors with even private actors before NGOs.

CHANGING POPULATION

We also see a shift in the epidemiological profile of populations affected by conflicts, from infectious to non-infectious diseases, due to the increase in life expectancy in Sub-Saharan Africa and to more beneficiaries from middle-income countries in the Middle East and Ukraine.

The mental health consequences of crises are now better understood and are a priority that can no longer be ignored.



The high-profile wave of displacement across the Mediterranean over the past few years caused media attention to spike and describe it as the centre of the global migration crisis. This is misleading. The United Nations High Commissioner for Refugees' report on *Global Trends in Forced Displacement 2015* ⁽¹⁰⁾ shows the highest burden of the more than 65 million displaced persons in the world by far skewed towards receiving countries like Turkey, Pakistan, Lebanon, Iran, Ethiopia and Jordan. Most of the refugees and displaced populations in the world today are not in refugee camps but on the road or in host communities, sometimes in urban settings.

The people we serve have more access to information and have, as they should, higher expectations from humanitarian medical providers than has been the case in the past.

IMPLICATIONS FOR MEDICAL HUMANITARIAN ASSISTANCE

The factors mentioned above make it more difficult to access, leverage, and provide humanitarian medical assistance.

Some humanitarian actors are part of the problem, while others have little willingness, funds, or capacity to intervene or don't consider it a priority or a mandate. As a result, local organisations, diaspora groups, and regional donor networks end up filling the void ⁽⁸⁾.

As many NGOs depend on government donors, their choices are further limited by government policies. Only a few international NGOs have enough private funding to remain independent in their operational choices.

These trends may signal the end of the context that produced modern humanitarianism. With few traditional wars or battles, newer technologies, greater disregard for international humanitarian law, and crises such as the forced displacement of increasing numbers of refugees, it could become difficult for humanitarian actors to continue operating as they have done in the past decades.

CONCLUSION

We need a better understanding and in-depth debate about the realities of humanitarian emergencies and the future of medical humanitarianism. This debate should not take place primarily in summits where suited government officials, donors, corporate executives, and NGO bosses talk to each other, but within the context of a broader discussion held among field workers (both foreign and national), the public that supports humanitarian assistance with their donations, and above all with the people affected by emergencies. This will improve our understanding of the changes we are facing as well as the opportunities and pathways to the future in front of us.

When that is the case, borders get closed to humanitarian assistance, health facilities get bombed, and populations are pushed out of their homes and their countries – all with little or no ramifications or deterrence for the perpetrators.

In a truly humanitarian world, where we aim to reduce the impact of war and violence and retain a trace of human dignity in the face of destruction and massive forced displacement, we must start to consider when, within a humanitarian context, does the sovereignty of people trump that of states?



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STATE
SOVEREIGNTY
AND NATIONAL
POLITICS HAVE
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PUT ABOVE
THE NEEDS OF
THE PEOPLE



On Jihad and Leprosy

At the beginning of the twentieth century, the Dutch East Indies Army gained control of the most northern part of the expansive island of Sumatra, called Aceh. For thirty years the Aceh people had kept colonization at bay, but bloody, murderous campaigns brought them to their knees. The conquest did not put an end to violence, however. One of the paths of resistance adopted by the Acehnese was a series of suicide attacks against Dutch residents, which became known as the 'Aceh-murders.'^[1]

These attacks were intimately connected to the history of leprosy in the region, and offer an insightful avenue into the role of medical discourse for Dutch colonial administration.

For the colonized, resistance against the Dutch was an endeavour of religious significance. Opposing the Christian oppressors was a matter of Holy War in the eyes of the largely orthodox Islamic Acehnese, and martyrdom was a legitimate avenue to achieve this. The Dutch authorities, by contrast, framed the attacks as the actions of psychologically disturbed individuals. Killings were explained away as symptoms of a condition related to the well-known 'amok,' a term used by the colonial authorities to refer to acts of killing at random without provocation. Amok was portrayed as typical behaviour of the so-called 'autochthonous races,' a pathological manifestation of their inability to control emotions and behave rationally. The challenge for the Dutch in the case of the Aceh-murders, however, was that the killings had been consciously planned, while 'amok' referred to a form of spontaneous frenzy.^[2]

RELIGION AND ILLNESS

Leprosy sufferers played a significant part in these killings. In 1914, the Dutch *Algemeen Handelsblad* (General Trade Journal) reported that, once again, attacks by Acehnese leprosy sufferers had occurred.^[3] In 1917, a soldier was heavily injured after an attack by a leprosy sufferer, and in 1918, the same occurred with a military doctor who died from his wounds.^[4] In 1917, a veteran of the Aceh wars declared in the *Sumatra Post* that the killings were closely related to Islam and were nothing less than a suicide attempt in the hope of taking several Dutch lives in order to achieve martyrdom. However, he added, 'this horrible disease called leprosy' was often a contributing cause. By seeking death in the fight against the Dutch infidels, the lives of these leprosy sufferers would perhaps find meaning, so the veteran believed. Religion and illness had, he thought, become a dangerous combination.^[5]

In 1920, the psychiatrist F.H. van Loon extended this hypothesis. He was the first Dutch doctor to point out other reasons, besides religion and a racially-determined inclination to mental instability, for the attacks. He argued that abuse of alcohol as well as opium, and illnesses such as malaria, framboesia and syphilis, were contributing causes. He also agreed with the Aceh veteran that leprosy was a possible cause for these martyrdoms.^[6]

The suggestion of a connection between leprosy and the Aceh murders was picked up in 1923 by J.J. van Lonkhuyzen, the head of the *Dienst Volksgezondheid* (Public Health Service). Lonkhuyzen hypothesized a relationship between leprosy and madness, which could manifest as a 'fanatical religious conviction'. This connection, he argued, might explain the part played by leprosy

sufferers in the 'numerous murders on non-Acehnese'. Due to their status as social pariahs, leprosy sufferers stood an even greater chance of becoming involved in activities of religious fanaticism. In their state of mental imbalance, Lonkhuyzen explained, they were more susceptible than healthy Acehnese to the belief that they would reach heaven by killing infidels. Lonkhuyzen therefore concluded that the battle against leprosy in Aceh was of the utmost importance in the fight against madness and, ultimately, in the battle for colonial stability.^[7]

AGOESAN

In September 1928, all the inmates of the leprosarium at Agoesan, both male and female, were reported to have attacked a nearby military camp. With around 70 inmates, Agoesan was one of the largest of 19 leprosariums at Aceh. The establishment was placed in the area of Gajoe Loeös, at the eastern coast of Aceh, the location where Dutch soldiers had waged bloody attacks during the last years of the war.^[8] The murders at the military camp took place after a failed attempt by a government official to 'ease the emotions'. Soldiers opened fire on the attackers, who were described as being in a state of 'mental frenzy', and many were killed.^[9]

In agreement with Van Lonkhuyzen, a comment in the *Nieuwe Rotterdamse Courant* (New Rotterdam Paper) explained away this attack by pointing out that the Acehnese, to an even greater degree than inhabitants of the Dutch East Indies generally, were susceptible to sedition by fanatics wanting them to choose death in the name of a higher cause. This was especially true for leprosy sufferers, the paper suggested. Because Acehnese dealings with leprosy sufferers had always been harsh, it was more than likely that there had been individuals at Agoesan who, 'in the



atmosphere of such a lonely colony filled with miserales', had riled the locals. ^[11]

However, in the *Volksraad* (People's Council), it was pointed out that living conditions and treatment at the leprosarium at Agoesan were highly unsatisfactory. ^[12] This was partly because it was positioned at an almost inaccessible spot. According to council member Apituley, the attacks therefore should be seen as a consequence of, and a protest against, harsh conditions. These grievances were also present in other colonies, he pointed out, making chances of repetition considerable. But the official report published after the events in Agoesan only spoke of world-weariness, and the 'incident' was portrayed as having little political meaning. It was certainly not considered as a reason for political change.

As a result of the attacks, Agoesan was closed. The surviving leprosy sufferers were moved to a leprosarium nearer to the city of Blangkedjeren in order to enable, as it was framed, more regular medical care. ^[13] An alternative and more rational solution, concentration of all the numerous small leprosaria on Aceh, was not considered and decided upon until 1939, even though the remainder of the sprawling island of Sumatra only had a couple of leprosaria containing hundreds of inmates. ^[14] But due to the Japanese occupation at the beginning of 1942, this plan never left the drawing-board.

REBELLION AND DOMINATION

The Agoesan attacks point to a close relationship between rebellion against domination by Dutch Christian colonizers and the practice of exclusion of leprosy sufferers in Aceh, not only by the Dutch but also by the Acehnese themselves. The Acehnese people never

fully submitted themselves to military defeat. There is no reason to assume that the leprosy sufferers among them submitted either. Perhaps they were prepared to sacrifice their medically debilitated lives not so much to end their suffering or because their condition had any major negative effect on their state of mind, but to show their hostile countrymen that they too were true Acehnese who could contribute to the Holy War against the Dutch usurper. If this is the case, it might explain why it took so long before a decision to concentrate the small leprosaria on Aceh was reached. An uprising in a big leprosarium would have been much harder to suppress. Van Lonkhuyzen's conclusion that the fight against leprosy benefited the fight against madness can therefore be expanded upon: Dutch leprosy policy in Aceh was intimately connected to measures against resistance to Dutch rule.

Leo van Bergen is a Dutch medical historian currently employed by the Dutch Veterans Institute and the Netherlands Institute for Military History, researching the history of Dutch military medicine. His main topics of interest are war and medicine, and tropical medicine. His book *Before my Helpless Sight: Suffering, Dying and Military Medicine on the Western Front* (Ashgate) was published in 2009. A book on leprosy in the Dutch East Indies will be published in 2018.



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Training Dutch military doctors and nurses preparing for peacekeeping, peace-enforcing and humanitarian aid operations

INTRODUCTION

After the Second World War, medical care of the Royal Netherlands Armed Forces was to a large extent focused on the troops deployed in the Northern German Plain, in a NATO Alliance framework, in preparation for a large-scale conflict with the Soviet Union and Warsaw Pact partners.

Since the early nineties of the last century, after the fall of the Berlin Wall and the disintegration of the Soviet Union and in line with the new political vision in Western countries of global stabilization of conflicts, Dutch military units have been deployed globally in peace-enforcing, peacekeeping and humanitarian relief operations as part of a larger international military unit or in a self-supporting role. These usually take place outside Western Europe. In this cadre, the first operation in which the Dutch were involved was UNTAC in Cambodia (1992-1993). Later on, substantial operations followed in East Congo (Goma), Eritrea, Iraq, and Afghanistan (2001-2014). Currently, Mali is the main focus.

This new scenario demanded from the military doctor a profound knowledge of epidemiology and management of infectious diseases in different situations with challenging climates and infrastructures. Moreover, military health care is not limited to the troops, as its extension to the local population is a logical and frequently occurring consequence. A knowledge of healthcare systems in low-income countries and an understanding of specific health problems in their populations are essential for success in such a mission.

In 1993, the Dutch Ministry of Defence requested the Department of Tropical and Travel Medicine of the Academic Medical Centre (AMC) in Amsterdam, the Netherlands, to develop an educational programme to provide this knowledge to military doctors.

The training programme that was developed for military medical officers (in Dutch: 'Algemeen Militair Arts' (AMA)) is part of their basic two-year training and consists of 3 courses (BIUPAMA, HPGAMA and GOLAMA).

Military nurses follow a similar training, adjusted to their level of education and focused on practical skills, e.g. malaria diagnostics.

It's worth mentioning that before a medical team of doctors, nurses and troopers (military medical managers) is deployed, a pre-deployment briefing and refresher course of laboratory skills are provided in a one-day session at the AMC.

TRAINING PROGRAMME

The BIUPAMA and HPGAMA are related courses in the AMA training programme, covering infectious and tropical diseases and Force Health Protection respectively. These two courses share specific issues with the GOLAMA, a simulated deployment exercise from a public health perspective.

BIUPAMA: COURSE ON INFECTIOUS DISEASES AND TROPICAL PATHOLOGY FOR THE MILITARY MEDICAL OFFICER

The BIUPAMA is a two-week course on infectious and tropical diseases, focusing on epidemiology, clinical presentation, diagnosis and treatment. It is organized and hosted by the department of Infectious Diseases (ID) of the AMC. A clinical (symptom-based) approach is used that aims to cover all essential knowledge and skills in a two-week programme. The participants are also introduced to the laboratory diagnostics of parasitology, bacteriology and virology (content: see box 1). The faculty of the course consists of staff members from the AMC's Infectious Disease Department and invited national and international experts. Obviously, the course is not only of great interest to the operational military doctors but also to medical officers of the barracks in the Netherlands, enabling them to recognize tropical disease in returning military patients.

The BIUPAMA is held twice yearly: in March a Dutch spoken course and a second English spoken one in October. The latter course is open to military doctors from NATO countries but also welcomes participants from Eastern Europe as well as from African and Asian countries (see Figure 1 and 2).

HPGAMA: COURSE ON HYGIENE AND PREVENTIVE MEASURES FOR THE MILITARY MEDICAL OFFICER

HPGAMA is a course on Force Health Protection. Many aspects of disease prevention are dealt with in groups, an educational form similar to the GOLAMA. Hygienic measures in a military camp, vector-control and prevention in connection with venomous and poisonous animals, prevention of high-altitude disease and medicine in extreme climatological circumstances, and health hazards caused by radiation and chemical agents are all part of this course.

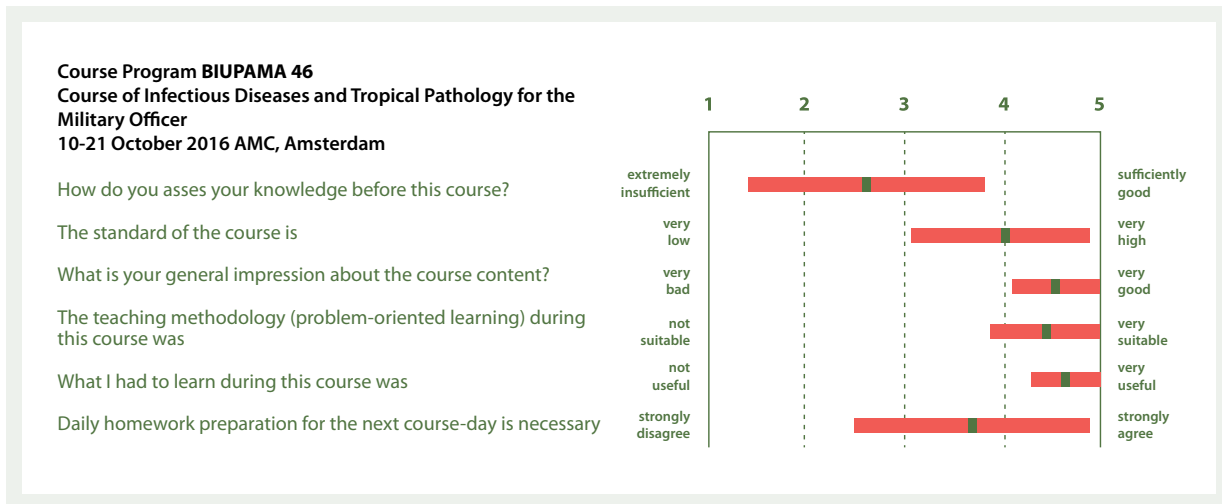


FIGURE 3

It is a one-week course, hosted twice per year by the Military Institute for Medical Training (DGOTC) in Hilversum, the Netherlands. Several military and civilian experts contribute to the HPGAMA, including AMC staff from the Department of Tropical and Travel Medicine.

GOLAMA: COURSE ON HEALTH IN FRAGILE ENVIRONMENT FOR THE MILITARY MEDICAL OFFICER

The GOLAMA is a one-week course, including evening classes, on public health systems and their management in developing countries. It is co-hosted by the AMC and the Royal Tropical Institute (KIT) in its historic building in the centre of Amsterdam. The GOLAMA focuses on planning and implementation of humanitarian and medical aid as part of an international military operation. It covers outbreak detection and control, setting up and managing a refugee camp, cooperation with local authorities and NGOs, and intercultural communication. In particular, ethical and legal aspects of military presence are also discussed and practiced. Additional tools are presented, such as health care assessment methodologies and problem prioritization. Participants work in groups of four to five persons, covering a diversity of issues arising in theatre. Each group is coached by a medical professional with extensive international experience and a civilian or military background (objectives and teaching methods: see box 2).

In the educational timeline, the GOLAMA is positioned in the final semester of the AMA training programme, shortly after BIUPAMA and HPGAMA. The course also welcomes medical logistic officers/medical planners ('troopers') and staff nurses, as efficient cooperation between these different disciplines is very welcome. Due to the success of the English spoken BIUPAMA, starting in 2017, one of the two yearly GOLAMA courses will be held in English and will be open to NATO partners.

PRE-DEPLOYMENT BRIEFING

Before medical personnel are deployed, a work-up period is generally scheduled in preparation of the mission. This programme includes a briefing by the AMC's Department

of Tropical and Travel Medicine. Combining aspects from BIUPAMA, HPGAMA and GOLAMA, this briefing aims to present an updated situation report. Based on the epidemiology of the locally most prevalent health problems, a discussion is held of preventive measures, disease management, and possible scenarios for humanitarian military-medical deployment, the latter depending on the mission's mandate. A laboratory refreshment course in parasitology is scheduled separately. During the mission, 24/7 consultation is provided by the ID physician of the Ministry of Defence, based in the AMC.

OUTBREAK RESPONSE TEAMS (ORT)

Infectious disease outbreaks during deployment affecting the troops and/or the local population cannot always be managed by the medical personnel at the deployment site, despite the adequate training programme they have gone through. Therefore, specific military units with expertise in managing outbreaks are trained and held on 'standby' in the Netherlands, who can be brought into the area of an outbreak within 24 hours. The forerunner of the ORT was a team sent in 2005 to the camp near Mazar e Sharif, in northern Afghanistan, assisting the medics in an outbreak of cutaneous leishmaniasis that affected nearly 20% of the Dutch contingent of 938 military personnel.

EPILOGUE

In the past two decades, the training programme resulted in an effective approach to medical care for the military and for the local population during deployment in several turbulent regions. So far, the BIUPAMA has trained a total of 1005 Dutch and international participants (see Figure 1 and 2). The courses are evaluated separately and adjusted to the needs of the participants and changing operational military demands. An example of questions and an outcome of the evaluation (BIUPAMA) is shown in Figure 3. The present Dutch political point of view requires flexible military deployment in a wide range of activities worldwide. Military doctors are increasingly deployed abroad in an early stage of their career. The courses, therefore, have become a vital part of preparation of military medical personnel.

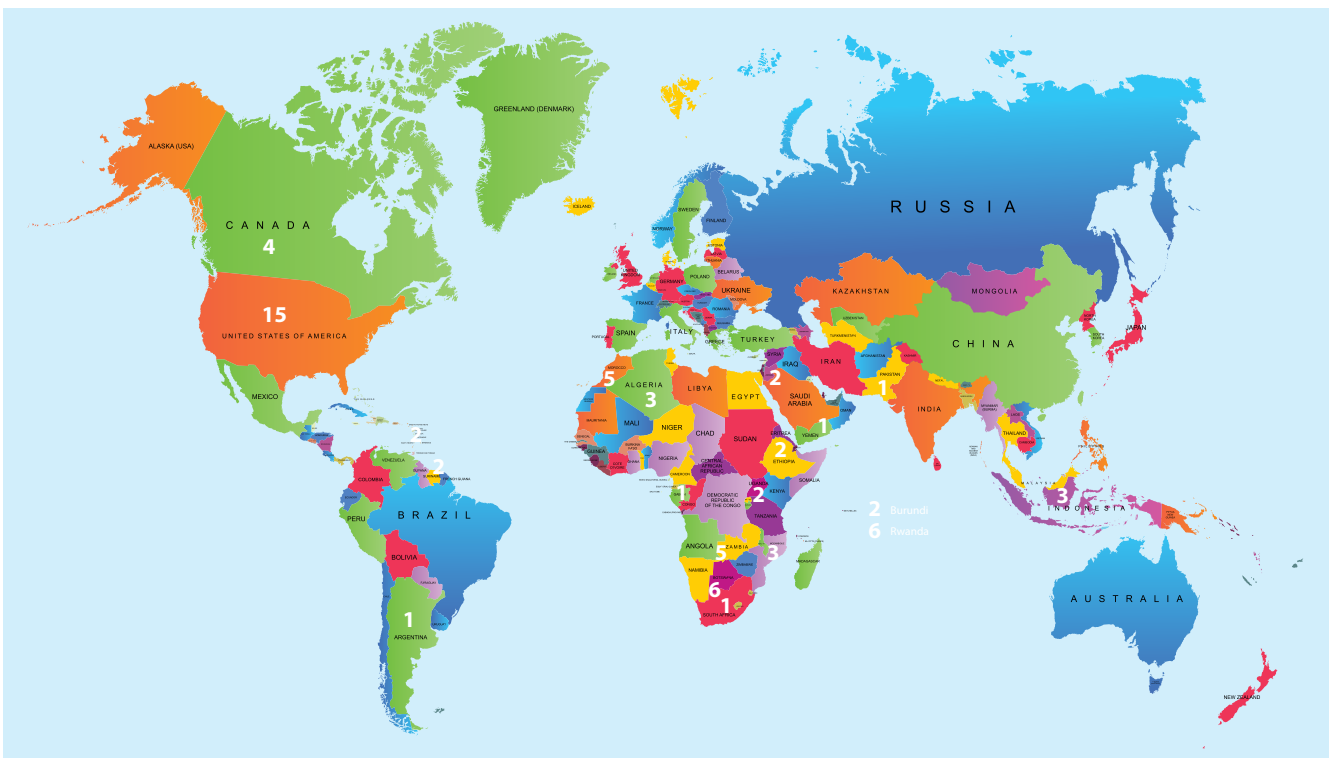


FIGURE 1 BIUPAMA number of participants (Europe) 1994 - 2016



NETHERLANDS 740
 EUROPE 198
 OUTSIDE EUROPE 67

FIGURE 2 BIUPAMA number of participants (outside Europe) 1994 - 2016



**BOX 1**

The following clinical problems in tropical pathology, imported diseases, and infectious diseases of temperate climates are dealt with:

- Assessment of fever
- Fever and respiratory tract infections
- Fever and neurological diseases
- Fever and diseases with mononucleosis
- Fever and lymphadenopathy
- Fever and skin disorders
- Fever and jaundice
- Hepatosplenomegaly
- Eosinophilia
- Diarrhoea
- Tropical dermatology

Attention is also paid to specific clinical diseases:

- Malaria
- Tuberculosis
- Enteric fever
- Sexually transmitted diseases
- HIV disease/AIDS

The following subjects are also covered:

- Overview of immune system
- Principles of antibiotic treatment
- Virology in daily practice (diagnostics, antiviral agents)
- Immunizations and malaria prevention
- Post-tropical screening
- Biological weapons

Practicals are given in:

- Bacteriology
- Parasitology (malaria and intestinal parasites)

After an introduction to epidemiology and control of infectious diseases, two case histories are presented to the trainees to be worked out in groups.

BOX 2

GOLAMA course: training objective, teaching methods and content

OBJECTIVE

The training objective is formulated based on the tasks that the General Military Doctor (AMA) is performing in the context of peace-keeping operations in a fragile country. These tasks are translated into skills necessary during a deployment mission and include :

- Preparing the delivery of the necessary medical care for the unit during deployment
- Assessing the medical situation on the ground after arrival and acting in accordance with the findings
- Setting and maintaining military medical service delivery system
- Administering management information system at the level of the primary care
- Managing medical information system at the level of the primary care
- Attending and advising on all medical problems
- Selecting medical aid intervention for the local population appropriate for local setting
- Organizing termination of the health post and transfer of materials
- Organizing redeployment
- Providing debriefing sessions
- Organizing post-mission medical care for the unit

TEACHING METHODS

The elements of the GOLAMA training are imbedded in a simulation exercise that continues through the whole course.

The structure of each session is as follows:

- Introduction session by a specialist in this field
- An assignment to the group (max. 5 people per group with 1 leader)
- Summary made by the specialist or the group leader

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Working in a conflict area

Interview with Maarten van der Burgh (general military nurse)

What is it like to work in a conflict area? Medical aspects, ethical dilemmas, logistical challenges, cultural differences, politics and security all combine to make it an interesting field of work. Maarten van der Burgh, general military nurse (GMN), talks about his work during his missions to Afghanistan in 2007 and 2009 and the Patriot mission in Turkey in 2016.

WHAT MOTIVATED YOU TO BECOME A MILITARY NURSE?

During my first mission in 1999, I was a foot soldier combined with being a Combat Life Saver (CLS) as an additional task. This aroused my interest. Becoming a GMN while having experience on the ground as part of the infantry is a good combination, because you can understand what someone in the field experiences.

WHAT CHARACTERISTICS DOES A GMN NEED? WHAT MAKES ONE SUITABLE FOR THE JOB?

You have to be a team player and in good physical and mental shape. Above all, you have to realise what you are signing up for. From early on, you will be trained in mental hardness; the exercises are designed to prepare you for difficult circumstances, in order to experience what your reaction might be. You have to be the type that does not give up easily. Also, it helps if you are a calm person who does not get stressed, because you are the person who is in charge and gives orders in a trauma setting. At the same time, you will have to be prepared to accept the choices that are made at a higher level, whether financial, logistical or political. The consequences of these choices could give you a feeling of impotence, for example if you are

with a wounded child and do not have a trauma package suitable for children.

WHAT IS THE COMPOSITION OF THE MEDICAL TEAM?

The composition varies according to the area. For example, a Patriot mission is on safe ground, which differs from being in Afghanistan. There are three different roles. Role 1, the first trauma care, is the responsibility of the operational unit. For role 2 and role 3 (the hospital care), agreements are made at the international level regarding who is responsible for delivering which type of care and resources.

There are approximately 3 nurses for each unit of 120 people. As a GMN, you work closely together with the rest of the staff. You are acquainted with the whole team, and they know where to find you if they have any problems. In a way, you are a confidant.

Besides the nurse, the operational units have personnel with additional medical tasks. There are Combat Life Savers (CLS), who are foot soldiers with lifesaving skills. They are the first responders and can perform the first lifesaving techniques. Every soldier has a medical kit, but the CLS has an additional basic trauma kit. They are trained by the Ministry of Defence, but it is the responsibility of the GMN and military doctor to keep their knowledge and training up to date.

All military staff receive basic medical training in the so-called 'self-help care for comrades', such as placing a tourniquet. The content of the training is based on experiences acquired by the British in the Falklands war and by the United States in Iraq. Analysis of casualties made it clear that most casualties occur as a result of massive bleeding, so every military person is equipped

with a tourniquet, compression bandages and other styptic resources.

HOW DO YOU PREPARE FOR A MISSION?

First of all, you gain information from your predecessors, for example on logistics. As for the medical preparations, you receive specific information about the most common diseases in the area where you are heading.

AND REGARDING CULTURAL AND POLITICAL ISSUES?

You take part in a training which is specific for your mission. This is a mandatory element in the preparation, in which you receive information regarding the political situation and cultural differences. You are informed of the local situation and the expectations of the local population. Also, you discuss what to do in difficult situations. If you prepare yourself for these experiences, you can reduce the chance of developing Post Traumatic Stress Syndrome (PTSS) and related complaints.

CAN YOU GIVE AN EXAMPLE OF A DIFFICULT SITUATION THAT YOU COULD ENCOUNTER?

During a patrol, you see a crowd stoning a woman. What do you do? Will you act or not? You have to be careful not to project your own morals and values on the local population. Another example: both an Afghan and Dutch person are severely wounded. Whom will you attend to first? These are things which you need to discuss beforehand.

HOW DO YOU PREPARE MENTALLY?

With your partner at home, you discuss how you will keep in contact, to prevent the other from worrying unnecessarily. Also, you prepare a manual for the bereaved for the event of your death. That's about it, because in reality, it's difficult to prepare yourself mentally.



I DO NOT REGRET MY CHOICE

WHAT IS YOUR ROLE AS A GMN? DO YOU GO ON PATROL OR DO YOU STAY AT BASE CAMP?

That differs. In Afghanistan I went to a post outside the main camp, where I stayed for 2 or 3 weeks. Your role there is to provide trauma care (role 1). In the first place, this is for the military, but you can also use it to tend to the local population. From this outpost, the unit goes on patrol in the area. The requirement is for the GMN to be present within 10 minutes in case of casualties. So, depending on their distance from the post, this means we sometimes have to go on patrol with the soldiers, and in other cases we can remain at the base. We can then use modes of transport to reach the soldiers as quickly as possible, for example an armoured ambulance. Before each assignment, we plan the best possible scenario for providing medical assistance, together with the commander.

THIS MEANS THAT YOU CAN ONLY PLAN TO A CERTAIN EXTENT, LEAVING THE REST TO IMPROVISATION?

For example, if you have nine casualties at the same time, triage is necessary, as is communication with the other layers (role 2 and 3), ensuring they can anticipate and send helicopters or a surgical team.

DID YOU FEEL SAFE ON YOUR MISSIONS?

Yes. In Afghanistan, we slept in armoured containers, which are generally quite safe.

WHEN ON PATROL, WERE YOU, AS A NURSE, ALSO ARMED?

Yes, we have a saying, 'Every man, a rifleman', which means that as a team you first ensure that the situation is safe in order to prevent more casualties. We practice difficult situations at

our skills labs, where we can simulate all kind of circumstances with the use of smoke, sound and smell.

ON MISSION, DO YOU HAVE SPARE TIME?

Free time is scarce, as you are always on call, 24/7. At camp, anything can happen – an accident or medical complaints of staff members. There are moments to unwind, but relaxation is always relative. We have a room where we can relax, and often there is a gym, or we put up a volleyball net outside. There is internet and email, and you can watch a movie or read. Also sessions are organized for reflection.

WHAT IS THE AVERAGE DURATION OF A MISSION?

In general, it's 4 months and 3 weeks, or 6 months. The norm is that you are not sent on a mission for the period of double the duration of the mission. Unless you voluntarily apply for an earlier assignment.

CAN YOU PRESERVE MEDICAL NEUTRALITY AS A GMN?

Your medical background ensures your neutrality, regarding all patients being equal, whether from your own coalition party or the opposite party. This can be difficult, for example in a situation where both your colleague and the enemy attacking him are wounded at the same time.

With regard to attending to health care needs of the local population, we may only perform 'life-, limb- and eyesight-saving' actions. You are not supposed to send them to your own role 1 trauma post, as many locals would then ask for your help, thereby undermining the local health care system.

WHILE IN THE NETHERLANDS BETWEEN MISSIONS, WHAT IS YOUR ROLE, AND CAN YOU DESCRIBE AN AVERAGE DAY?

Partly you are on leave, and partly you perform tasks with your operational unit. You participate in exercises, teach and take care of the maintenance of your equipment. When the unit goes on military practice, they will need medical assistance. Also, you can do an internship at an emergency department or an ambulance unit to gain experience for future missions

On average, we do sports at least 4 times a week. We receive training from a medical doctor or we train each other. Logistics keeps us busy, because equipment such as vehicles and aggregates require maintenance. There are meetings and practice sessions. Also, you are in charge of your personnel, so you have to attend to human resource business, such as performance interviews etc.

ARE THERE THINGS WHICH HAVE CHANGED YOU AS A PERSON, THINGS YOU WILL NEVER FORGET?

I went on a large military mission in Afghanistan. You have some good experiences, but also quite horrific ones. You learn to put things in perspective. The beauty of our work is that we work as a team, which helps keep the balance. Overall, I do not regret my choice.

Explanation of Role 1, 2 and 3:

Role 1 medical post: Basic care, first trauma life support

Role 2 hospital: Surgical capacity with operation rooms for damage control surgery and sometimes basic intensive care. There is also a blood bank and a pharmacy.

Role 3 hospital: More advanced surgical and diagnostic facilities (MRI etc.)



ALIES COENDERS
MEDICAL DOCTOR GLOBAL HEALTH AND
TROPICAL MEDICINE IN TRAINING



Post-conflict health reconstruction

Most armed conflicts over the past decades have been characterised by prolonged periods of fighting between a government and one or more opposing factions, often for well over 10 years. Increasingly, civilians have become ‘instruments of war’, and civilian populations are disproportionately affected by these so-called New Wars ⁽¹⁾. Displacement, affected livelihoods, deteriorated health status, and economic decline are some of the consequences. Morbidity and mortality typically increase substantially due to the direct effects of warfare but often also due to indirect effects such as deteriorating determinants of health, including malnutrition, increased epidemic risks, and declines in preventive and curative health services. The conflicts in Afghanistan, Democratic Republic of Congo, Somalia, Sudan, Liberia and Sierra Leone are well known examples, and recent widespread conflicts in countries like Syria, Central African Republic and South Sudan can be added to this list.

The prolonged conflicts in these countries, often already weak states at the beginning of conflict, tend to erode all institutions in the country and even affect the very fabric of society. The erosion of institutional capacity affects all levels and sectors of government, including health authorities at national and subnational levels.

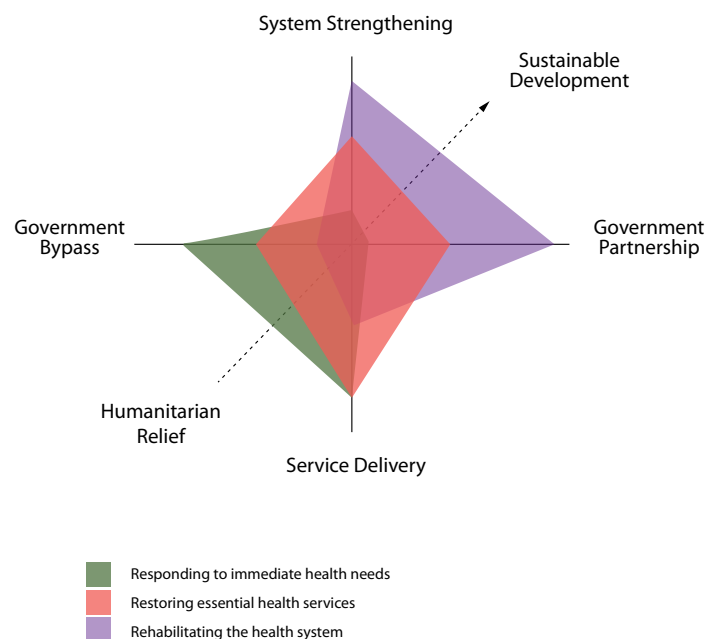
During most of these conflicts, an international humanitarian response emerges. The international community, in the form of UN agencies and international relief NGOs, arrives on the scene to protect people, whereby ‘saving lives’ is the primary goal. Humanitarian health agencies aim to provide health services by setting up clinics and other services, through their own operations or through support to pre-existing health facilities. These can be large-scale operations that may last for many years. While usually some form of coordination with local health authorities takes place, the humanitarian agencies insist on being able to act independently and retain control over their own resources. In many cases, this is the only way to operate to protect citizens and save lives. But while lives are being saved, the health system usually suffers in that it becomes increasingly fragmented with an unequal distribution of services.

POST-CONFLICT

Sooner or later conflicts are resolved through some form of political settlement. It is rare for this to occur through a one-off negotiated peace agreement that is consistently upheld by all parties. Rather, the end of conflict usually consists of a lengthy process in which the conflict gradually goes through phases of increased stability, intertwined with periods of more or less widespread re-occurrence of fighting until some form of lasting stability has been reached. If at some point in this process a sense of more lasting stability emerges, which may

be the case if a negotiated change of power or other form of settlement is achieved, the international community generally changes its approach. Humanitarian funding is reduced and, more importantly, it’s necessary to ensure that a viable state emerges that is able and willing to take care of its citizens. For the health sector, this means that health authorities need to be in charge again, set policy directions, and regulate the health sector. Since the capability to do so is often marginal, a lengthy transition process can be necessary in which the state gradually takes on its role in promoting sustainable development. In the health sector, there is then a need to transition from a pure focus on health service delivery towards a more comprehensive focus on the whole range of health system building blocks. The diagram in figure 1 aims to illustrate the transition process ⁽²⁾.

FIGURE 1 Transition framework



The transition is never a smooth, linear process. Bouts of insecurity may re-occur, initial political settlements may not hold, and institutional capacities will only gradually improve. Even if peace lasts and substantial resources are allocated to a reconstruction of the health system, it takes a long time to establish a truly resilient health system. The inability of the health system in Liberia and Sierra Leone to deal with the Ebola outbreak, followed by a collapse of the existing health system, resulting in even more victims due to ‘non-Ebola’ causes like malaria and maternal deaths, is a clear example of this ⁽³⁾.

THE APPROACH

The transition period is difficult to manage. It requires a long-term approach, but this is hindered by the ongoing instability, weak government institutions, frequent lack of accountability, and poorly harmonised donor policies with short-term horizons. There is a need to urgently meet the increased health needs, while at the same time addressing the often not fully compatible need to put a government ‘back in the driver’s seat’ for long term sustainability and to increase trust in and legitimacy of a new government.

Due to reduced capabilities within government, often coupled with low levels of accountability, the international community and its donors tend to settle for hybrid approaches. Development principles that are useful in stable development contexts are mixed with modalities more often found in a crisis context. The aim is to support the emergence of government-led policies and strategies. However, the implementation of the chosen strategy may involve NGOs, with an intermediate fund manager channelling the funds from donors to the NGOs outside the government financial systems.

A good example of the latter is the now widespread practice taking place in a range of post-conflict settings where NGOs are contracted to deliver health services on behalf of the government and within the scope of government-set general health policies. Contracts, which are usually paid for directly by a donor or its non-state fund manager, may provide the NGOs with more or less autonomy to deliver the services. Local capacity building of health authorities and health providers is usually part of the contract.

This approach tends to lead to a largely supply driven model. A more recent development is to pay much more attention to the ‘missing’ health systems building block, i.e. a focus on the needs of the people in the communities undergoing health sector recovery (Figure 2).

An example comes from South Sudan. Partly inspired by Ethiopia’s Health Extension Program, the government now endorses the Boma Health Initiative. This initiative is meant to complement the largely supply driven rollout of an essential package of health care, with the involvement of NGOs assisting country health departments, by placing much more emphasis on the role of communities. This Boma Health Initiative model is based on Boma Health Teams (3 salaried community health workers) and is constituted as a formal component of the health system to deliver an integrated package of health promotion and selected treatment services supported by volunteer home health promoters. The Boma Health Teams are meant to be the entry point for all community level health activities and for all health programmes in that community (a Boma is the smallest geographical area and administrative unit in South Sudan). The Boma Health Initiative is in line with renewed interest over the past years in Community Health Worker programmes bringing services closer to the communities. More evidence is now available on the factors that influence successful CHW performance (4). Appropriate involvement of communities, including close-to-community services, is leading to a more demand driven approach and increased accountability on the part of health authorities and providers, which in turn is believed to be an essential contributor to state building.

IN POST-CONFLICT ENVIRONMENTS, HUMANITARIAN AID MODELS HAVE TO GIVE WAY TO DEVELOPMENT AID



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FIGURE 2 **The Seven Health System building blocks**





Violence against Healthcare in Conflict Settings: a MSF perspective

Exposure to violence is nothing new for MSF. Violence has been present in the places where MSF has worked since the organization was founded more than 45 years ago. In many instances, that violence was the reason MSF was there in the first place. Although the phenomenon is not new, we feel there is a worrying recent trend of systematic and deliberate targeting of medical facilities and personnel in some conflict settings.

The most emblematic attack occurred on October 03, 2015 when 13 MSF staff and 10 patients lost their lives as an American air force plane bombed the MSF emergency trauma hospital in Kunduz, Afghanistan. For over an hour, the U.S. plane raided the hospital's main building, containing the operating theatre and intensive care unit. While the Kunduz event was unprecedented for MSF, it was not the first time the medical-humanitarian organization was affected by the bombing of a hospital it was running or supporting. In October 2015, 12 hospitals in Syria - including 6 supported by MSF - were hit, and in Yemen the MSF-supported health centre in Haydan was hit and destroyed in a number of airstrikes by the Saudi Arabia led coalition. Outside the Middle East, a hospital operated by MSF in the South Kordofan region of Sudan was directly targeted in an aerial bombing by the Sudanese Air Force on 20 January, 2015. Other shocking events have included the killing of 58 people, including 25 patients, on MSF hospital grounds between December 2013 and June 2014 in South Sudan.

Most of these incidents have both direct and indirect consequences for MSF's operational capacities and its ability to

access and treat patients. Although difficult to quantify, the consequences for patients are dramatic and disturbing as well. Some are too frightened to even attempt to get to a hospital. Others are unable to reach the hospital when they do try to go. In the most extreme cases, patients have been assaulted or, in certain instances, killed in their hospital beds. And when MSF (and other organizations) are forced to suspend or withdraw from their projects, civilians lose what little access to medical care they had.

The specifics of incidents vary but the end result follows a familiar dynamic. The 'working space' that MSF seeks to establish in order to undertake its medical-humanitarian work is encroached upon and compromised while the ability of would-be patients to access necessary medical care is impeded, if not completely cut off, often at great cost. The withdrawal of MSF teams and services means local populations cannot access the medical care that many of them urgently need, adding to their suffering, and leading, we believe, to many deaths that might well be avoided.

PROTECTING MEDICAL CARE IN CONFLICT SETTINGS

In situations of conflict, international humanitarian law (IHL) grants a special status and specific protection to medical services - medical units, transportation and personnel. Facilities - including hospitals, clinics, pharmacies, and laboratories - are protected from destruction, attacks, and requisitions under the IHL framework first developed more than 150 years ago with the drafting of the first Geneva Convention (1864). Civilian hospitals that are organized to provide care for the wounded and the sick may in no circumstances be the object of attacks. They must be respected and protected, at all times, by the parties to the conflict. Medical personnel must have access to any place where their

services are essential to collect and care for the wounded and sick. IHL is based on the agreed notion that civilians and wounded combatants are not part of the conflict. As such, legal frameworks and customary practices protect the most vulnerable (sick and wounded) and the medical personnel taking care of them.

A multitude of provisions aim to protect members of medical personnel in the exercise of their functions. They must be respected and protected at all times and in all circumstances, and no one may demand that they give priority to any person or group of persons, except on medical grounds. Medical personnel may not be punished for their activities, no matter what the circumstances may have been and regardless of the person benefiting from their actions, as long as these actions are compatible with medical ethics. Medical personnel may not be compelled to carry out acts contrary to the rules of medical ethics or to breach doctor-patient privileged confidentiality.

It would, however, be naïve for MSF as well as for other IHL promoters to not acutely realize that war results in brutality towards civilians and providers of essential services. This has been the norm, and it is an undeniable fact backed by the history of humankind and warfare. In many ways, IHL is meant as a mitigating factor against the worst outcomes of armed conflict. Within this pragmatic approach, what MSF does is to try and negotiate a 'working space' in which to operate safely in conflict zones. In these negotiations MSF will use every argument conceivable to obtain access to the victims of violence, from IHL to appealing to human values shared across cultures and to the benefits for local populations afforded by the presence and medical assistance MSF would offer. Under this rationale, IHL is thus rather an agreed standard that can be useful as a tool to achieve humanitarian



access to populations in crisis and in dire need of healthcare in conflict zones.

Current approaches to tackling the challenge of protecting healthcare in conflict settings should highlight the impact such attacks on facilities and practitioners have on civilians living in conflict zones. International advocacy efforts should not be limited to arguments based on the absence of a hospital for the victims of war, but should also focus on the interruption of routine services such as basic vaccination for children and the availability of maternity services or the drugs required to treat non-communicable diseases. What all attacks have in common is that they deprive vulnerable people and communities of access to medical care and, in so doing, increase their risk of suffering greater harm or even death. They also put organizations like MSF on the defensive, forcing them to react to a situation that is being dictated by others who do not share similar humanitarian objectives.

WHAT TO DO

Since 2012, MSF has engaged with this issue by undertaking in-depth research and targeted advocacy in order to limit attacks on healthcare in conflict settings and their repercussions on civilian populations. By documenting attacks and speaking publicly about them, MSF's awareness raising and advocacy efforts complemented that of other actors such as the ICRC, and ultimately led to a resolution by the UN Security Council (Resolution 2286) in May 2016. However, this is only a small step in a long process and there clearly remains a lack of commitment from political and military leaders to respect medical missions, as other attacks in Syria and Yemen have shown since UNSC Resolution 2286 was passed in New York almost 9 months ago.

MSF and other actors cannot successfully tackle this challenge on their own. There is a role for and a clear need for doctors and medical associations to get involved within their own societies, adding their voice and their weight to demand accountability and respect for the basic laws of war. It is only by applying increased political pressure on governments engaged in conflict zones (as the Netherlands is in Iraq), by mobilizing across numerous countries and constituencies, and by raising the political price paid for such attacks that civil society organizations will favourably impact the respect given to providers of healthcare services in war zones. Only by reaffirming that doctors should never be targets can the ability of MSF and others to provide life-saving medical assistance in conflict zones be protected and preserved, thereby offering some semblance of 'humanity' in the heart of chaos and destruction.



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PHOTO AYE PYAE SONE / MSF





News from the Training Institute of Global Health and Tropical Medicine

In January 2017, the first medical doctors completed the new training programme allowing them to carry the title of Medical Doctor in Global Health and Tropical Medicine (MD GH TM/ Arts Internationale Gezondheidszorg en Tropengeneeskunde, AIGT-KNMG)!

1993, which was then a run-down hospital in the remote, densely populated North-East of India. Over the years, despite many difficulties, they have continuously been building up the hospital, where 100,000 patients are now seen in OPD, 5,000 babies are delivered, and 2,400 major operations are performed

up with inconveniences so that they may excel in their work. This provides the basis for a perfect partnership.'

AS MUCH AS THE RESIDENTS NEED TO LEARN AND DEVELOP THEMSELVES IN A LOW-RESOURCE SETTING, THEY WILL ALSO BE ABLE TO CONTRIBUTE TO THE HEALTHCARE SYSTEM.

"CLOSE THE GAP" – ADVOCACY

There is a growing awareness that the greatest investments of time, effort, and funds in the world are presently going towards making healthcare more convenient, safer and better for people who are already receiving relatively good quality healthcare. Many others are, however, unable to access healthcare due to ignorance, poverty, remoteness, war-like situations etc. Awareness of these problems is vital, and a comprehensive approach is needed to close this gap in healthcare accessibility. Therefore, besides focusing on clinical care, it's vital to maintain a broad scope, cooperate with NGOs, and promote fund raising and advocacy.



Four dutch doctors (Geerte den Hollander, Inge Verdenius, Judith Pekelharing and Juul Bakker) with consultants dr Ann Miriam and Vijay Anand Ismavel at the partner institute Makunda hospital in India

each year. The hospital also has its own nursing school. Due to the availability of supervision, good equipment, and experienced faculty, this hospital makes a great learning environment. A brief video about the work at

Compared to the old programme, a new element in the training programme that adds significant value to the training of MD GH TM specialists is the six-month training in a 'low-resource global healthcare' setting. In addition, it gives the training institute (OIGT) (and the NVTG) an opportunity to build relationships with hospitals abroad and NGOs.

Makunda is available at: <https://the-sparrowsnest.net/2016/02/19/short-video-of-our-work-made-by-emmanuel-hospital-association/>

We reflected on this partnership with Dr Vijay, the medical director of the hospital.

LEARN AND CONTRIBUTE

The OIGT organizes one of the few training programmes in the world that prepares medical doctors to work in low-resource settings in the developing world. The genuine interest, strong motivation, clinical experience, and expertise in public health enables the residents to also contribute to the hospital during their training. Dr Vijay: 'The residents are high-calibre individuals who are willing to put

THIS TRAINING COMPONENT FOCUSES ON CLINICAL CARE AS WELL AS PUBLIC HEALTH ISSUES (ADMINISTRATION, ATTITUDES, FUND-RAISING, RECRUITMENT, STRATEGIC PLANNING AND ADVOCACY WITH GOVERNMENTS AND OTHER DECISION-MAKERS).

EXCHANGE OF KNOWLEDGE

Makunda Hospital has established a successful working model of a relatively large volume hospital targeting the poor in a remote rural area. Many of these strategies can be readily applied to other low-resource settings in other parts of the world. Residents are being



placed in different hospitals all over the world, often with similar issues that need resolving, like training of staff, development of protocols, etc. (of course adjusted to the local situation).

PUBLIC HEALTH RESEARCH AS PART OF THE TRAINING AND SHARING OF INFORMATION CAN PLAY A ROLE IN THE EXCHANGE OF KNOWLEDGE BETWEEN HOSPITALS AROUND THE WORLD AND CAN CONTRIBUTE TO QUALITY IMPROVEMENTS.

Other facilities where IGT aios are being trained:

- Walikale Hospital, Democratic Republic of Congo (via MSF)
- Nigist Eleni Hospital, Hosanna, Ethiopia (via VSO)
- Rubya Hospital, Tanzania
- Mnero Hospital, Tanzania
- CIB Hospital, Pokola, Congo Brazaville
- Namatanai, Papua New Guinea (via Australian Doctors International)
- St Francis Hospital, Katete, Zambia

As shown by the partnership with Makunda Hospital and EHA, the new component of the training programme creates opportunities for the OIGT and the NVTG, an important learning environment for the GH TM residents, and valuable cooperation with the hospitals involved.

We want to congratulate Judith Pekelharing and Juul Bakker, the first “new style” Medical Doctors in Global Health and Tropical Medicine, and wish them a bright future in global health – closing gaps, building bridges, and contributing to a healthier and more equal world.



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R

ecently we finished our training in this inspiring hospital in rural India. For six months we, Judith Pekelharing and Juul Bakker, have been working at the Makunda Christian Leprosy & General hospital, mainly in the obstetric & gynaecological

department, but also in general medicine, paediatrics, surgery and anaesthesia.

The philosophy of Drs Vijay and Ann is reflected in their daily work in Makunda. They managed to train and employ a team of highly motivated staff, working day and night to give the generally poor patients the best treatment available. The commitment of the staff is impressive and has no limits. When the ventilator breaks down, nurses will ventilate the patient by hand as long as necessary, and even during a cold and quiet night shift, we found nurses in the labour ward studying.

For us, the hospital has been a great learning environment. We had the chance to quickly develop our clinical skills, e.g. caesarean sections, in a hectic setting with large patient numbers and supervision always being available. Moreover, the low-resource setting makes it a perfect place to experience how clinical work and public health problems are intertwined. Patients often reach the hospital when it is (almost) too late, for example after several eclamptic convulsions or in cardiac failure from severe anaemia. Road conditions, low health education, and poverty are some of the underlying factors that we noticed. By being involved in the development of protocols and the teaching of medical staff (i.e. on malnutrition and ante-natal care), we broadened our knowledge of different subjects.

As the first Medical Doctors in Global Health and Tropical Medicine to complete the new training programme, we look back on an unforgettable time and a valuable experience.

Judith Pekelharing en Juul Bakker



ITP: A PATIENT BLEEDING REPEATEDLY

SETTING

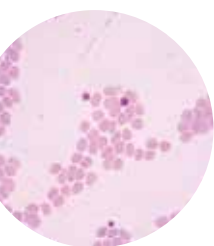
This case is from a district hospital in Ibenga, Zambia. The hospital has an outpatient clinic and 4 wards with a total capacity of 100 beds. It has basic diagnostic facilities, such as a laboratory, ultrasound and X-ray. There is an operating theatre. The hospital is run by Franciscan sisters. Currently the medical staff consists of 2 Zambian doctors and 2 Dutch tropical doctors.

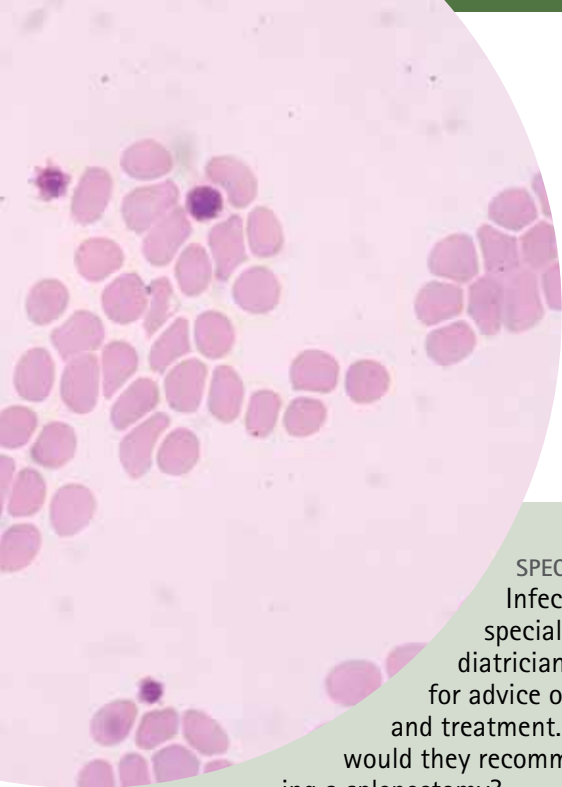
CASE

A 10-year old boy was seen regularly within the course of several months. He suffered irrepressible nasal bleeding with subsequent anaemia requiring blood transfusions – approximately 20 transfusions in 2 years. On clinical examination, splenomegaly was found; the spleen was palpable up to 3 cm below the ribs. There was no lymphadenopathy. Laboratory results yielded a thrombocytopenia ($30 \times 10^9/L$). Hb was 4.3 mmol/L, leukocytes were $4.7 \times 10^9/L$, and differentiation was normal. He did not use any medication and did not have HIV infection. Ultrasound showed an isolated splenomegaly. No further tests (Coombs, PT/APTT, haptoglobin, LDH) could be performed on site. He was referred to an academic hospital, where a bone marrow aspiration was performed. However, the material was of

insufficient quality to draw conclusions (Figure 1).

The patient was diagnosed with immune thrombocytopenia (ITP, formerly known as idiopathic thrombocytopenic purpura) and was started on prednisolone (2 mg/kg/day). After 2 weeks, an increase of platelets was seen. Unfortunately, he developed side effects of the high-dosed steroids, including fluid retention. After gradually reducing the dose of steroids over 4 weeks, the platelet count decreased and (this time gingival) bleeding restarted. As blood for transfusion in this small district hospital was very hard to come by, a more curative approach was needed to prevent disasters in the future.





SPECIALIST ADVICE
Infectious disease specialists and paediatricians were asked for advice on diagnosis and treatment. For example, would they recommend performing a splenectomy?

The specialists replied to this query within a few days. They agreed on ITP being the probable diagnosis, considering its high prevalence, the age of the patient, and the abundance of megakaryocytes in the bone marrow. Regarding the differential diagnosis, HIV and medication induced thrombocytopenia had already been excluded, and leukaemia was unlikely as there would have been a more rapid deterioration.

To control the epistaxis, tranexamic acid (cyclokapron) or cauterization of Kiesselbach's plexus were proposed. To treat ITP, rituximab was mentioned. However, this was not available in the rural setting. It was suggested to repeat treatment with steroids during 3 weeks and to then gradually reduce the dose. If this did not give satisfactory results, a splenectomy would be indicated. Chronic administration of steroids was not considered a favourable option considering the side effects and the need for stress dosage during infections.

FOLLOW-UP

A splenectomy was performed by a visiting surgeon from a nearby academic hospital. The patient received perioperative platelet transfusion and preoperative vaccines according to a post-splenectomy protocol (pneumococcal, meningococcal and influenza vaccinations). Perioperative macroscopic examination showed an enlarged spleen (possibly due to malaria or ITP), which otherwise appeared normal. Several days after surgery, platelet count was normal ($226 \times 10^9/L$).

Unfortunately, in the weeks following surgery, the platelets decreased again. The patient presented once more with epistaxis, for which Kiesselbach's plexus was cauterized under general anaesthesia. To date, the condition of the child remains stable.

BACKGROUND OF THROMBOCYTOPENIA

THROMBOCYTE PHYSIOLOGY

Normal platelet count is $150\text{--}400 \times 10^9/L$ and mean platelet volume (MPV) is 7–11 fL. Younger platelets, as seen in ITP, are larger and more active. Platelets have a lifespan of 8–10 days. ⁽¹⁾

DIFFERENTIAL DIAGNOSIS

Thrombocytopenia is defined as a platelet count $<150 \times 10^9/L$. It can be caused by either platelet destruction or impaired platelet production. ⁽²⁾ The former includes immune-mediated destruction (ITP, drug-induced), platelet activation/consumption (haemolytic uremic syndrome (HUS), disseminated intravascular coagulation (DIC)), mechanical platelet destruction (due to extracorporeal therapies, including haemodialysis) and platelet sequestration (hypersplenism, e.g. due to malaria). The latter includes a defect in megakaryocyte development and bone marrow suppression or failure (leukaemia, infection (HIV), chemotherapy, radiation, nutritional deficiencies (folate, vitamin B₁₂, iron)). Evaluation should therefore include a history of bleeding symptoms, systemic symptoms, prodromal illness, medication, underlying disease, family, travel and diet.

BACKGROUND OF ITP

PATHOPHYSIOLOGY

ITP is caused by auto-antibodies against platelet membrane antigens. ⁽³⁾ The antibodies have two effects. First, antibody-coated platelets are cleared by macrophages and therefore have a shortened half-life; second, antibodies may inhibit platelet production. ITP can occur after a viral illness or vaccination (particularly measles, mumps and rubella). ^(3,4)

EPIDEMIOLOGY

ITP is common, with an incidence of 1 to 6.4 per 100,000 children. There is a peak incidence between 2 and 6 years of age, and another peak in adolescence. ^(3,4)

CLINICAL FEATURES

ITP can be asymptomatic or present with mucosal bleeding (nasal, gingival, gastrointestinal and genitourinary) or cutaneous bleeding (petechiae, purpura, ecchymoses). ⁽³⁾ Spontaneous bleeding occurs when platelet count falls below $20 \times 10^9/L$ and surgical bleeding with thrombocytopenia below $50 \times 10^9/L$. ⁽¹⁾ Severe bleeding complications, including intracranial haemorrhage, is rare. ⁽⁴⁾ In some cases, splenomegaly is seen. Typically, there are no systemic signs (e.g. fever,



anorexia, bone pain, weight loss, lymphadenopathy, hepato-splenomegaly); these symptoms suggest a different diagnosis.

DIAGNOSIS

ITP is characterized by an isolated thrombocytopenia (platelet count of $< 100 \times 10^9/L$), ⁽⁴⁾ and a mildly elevated MPV. Manual platelet count should be performed, as automated methods lead to underestimation. ⁽⁵⁾ The diagnosis is one of exclusion and can be verified by a platelet response to standard therapy (i.e. corticosteroids). Standard tests include complete blood count and examination of peripheral blood smear. ⁽⁶⁾ Testing for antibodies is not recommended. ⁽⁴⁾ Bone marrow examination is not routinely necessary, but can be used to exclude other causes of thrombocytopenia. In ITP, it may reveal normal erythroid and myeloid precursors and large or immature megakaryocytes. ⁽³⁾

TREATMENT

In some cases of ITP, treatment is not required and an observational approach may be appropriate. In adults, this is the case for asymptomatic patients with a platelet count of $20-30 \times 10^9/L$ without risk factors (e.g. occupation, participation in sports, need for antithrombotic therapy). In children, due to their low bleeding risk, watchful waiting may suffice irrespective of platelet count. ⁽⁵⁾ It is also important to consider the self-limiting nature of ITP.

Treatment involves rescue therapy and maintenance therapy. The former focuses on promptly increasing platelet count with less concern for durability, safety and tolerability. The latter aims to achieve longstanding platelet response and minimal toxicity. ⁽⁵⁾

Rescue therapy consists of corticosteroids, intravenous immunoglobulin, anti-D and platelet transfusion. ⁽⁶⁾

For maintenance therapy, splenectomy and/or medication are applied. First choice options include low dose prednisone ($< 5 \text{ mg/day}$), the monoclonal antibody rituximab, and thrombopoietin receptor agonists. ⁽⁵⁾

PROGNOSIS

ITP is a benign disease and can be self-limiting in 50-70% of children. Initially, 70-80% of patients respond to corticosteroids, with 10-30% reaching remission. ⁽⁶⁾ Following splenectomy, 70-80% of patients show initial response, with 50-60% demonstrating a stable response. ⁽⁷⁾ Splenectomized patients are at an increased risk of (mostly encapsulated) bacteria, warranting pneumococcal, meningococcal and influenza vaccinations. ⁽⁸⁾ As the spleen removes parasitized red blood cells from the circulation, malaria prophylaxis is also indicated.



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COLOPHON

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VIOLENT BORDERS

This edition of *MTb* mainly concerns the *consequences* of violence and conflicts, and how to deal with these as medical professionals. The *causes* of violence are outside the medical scope and mostly political. However, working in conflict situations or with migrants often raises fundamental questions about people's rights, history, politics etc. Why does this happen? Why do so many people die at border areas? That is the question Jones deals with in his book *Violent Borders*: highly relevant for everyone working with or interested in migrant issues.

From the start, the aim of this book is clear – to investigate why the state has always seemed to be the enemy of people who move around and to show that the hardening of borders is the source of violence, not a response to it. These are rather strong statements, which made me curious as to whether and how the author would convince his readers.

Jones starts his book by describing the situation at the European borders ('the most dangerous border crossing in the world' with the highest number of deaths in the past decade) and how EU border policy led to increasing numbers of deaths. Next, he describes the history and militarization of the border between the United States and Mexico, illustrated by the shooting of a young Mexican boy by US border police. Similar examples and descriptions are given for the borders of Israel, India, Bangladesh and Australia, making it clear that violent borders are a global issue.

In the next chapters, Jones digs deeper into the background of this problem. He shows how, since early history, borders have been used to restrict movements of the poor, with a short exception when Europe's poor migrated to the US in the early 1900s. One chapter deals with questions of ownership and protection of land. Starting in the 17th century, with the rise of cartography, and during colonial times, more and more land became enclosed instead of being common land. Today, most land, as well as one third of the ocean surface is claimed by states. This allows them to use the land's resources and to limit people's movement. Most of these borders are only a few decades old.

The next chapter views the issue from an economic perspective – the ambiguity of free trade agreements in combination with limited freedom of movement of people. In this postmodern economy, multinational corporations outsource their labour to countries with a cheap workforce and loose regulations on environment, taxes and working conditions. At the same time these workers cannot escape their situation due to limited migration.

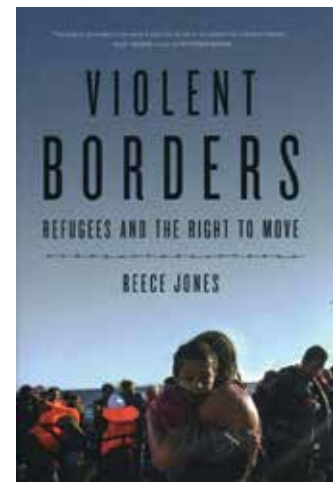
Every chapter starts with an illustrative story. This helps the reader since the book is not an easy read due to the many historical details. But the underlying theme is clear: borders create and maintain structural inequality, unavoidably leading to violence and casualties. Although it's a convincing argument, there seems no way back. But then the author compares this border inequality to other systems like apartheid and

WHY DO SO MANY PEOPLE CONTINUE TO DIE AT THE EDGES OF MODERN, CIVILIZED, AND DEMOCRATIC STATES?

slavery. A world without these systems was unthinkable at the time, but looking back we are ashamed of their existence. Will future generations look back in a similar way at our deeply unequal system, which keeps people trapped inside man-made borders? Jones actually ends with some suggestions on how things could change, so I warmly recommend reading the whole story.



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